



OIPE

RAW SEQUENCE LISTING

DATE: 09/23/2002

PATENT APPLICATION: US/10/057,531A

TIME: 10:46:05

Input Set : A:\Sequence.txt

Output Set: N:\CRF3\09232002\J057531A.raw

raw

**Does Not Comply
Corrected Diskette Needed**

W--> 3 (12) *delete*

9 <110> APPLICANT: Lyon, Jeffrey A.

10 Angov, Evelina

12 <120> TITLE OF INVENTION: Isolation and Purification of P. falciparum Merozoite Protein-142 Vaccine

14 <130> FILE REFERENCE: 003/241/SAP

16 <140> CURRENT APPLICATION NUMBER: US 10/057,531A

18 <141> CURRENT FILING DATE: 2002-01-25

20 <150> PRIOR APPLICATION NUMBER: US 60/264,535/US 60/347,564

W--> 22 <151> PRIOR FILING DATE: 2001-01-26/2001-10-26 *place on separate lines*

24 <160> NUMBER OF SEQ ID NOS: 12

26 <170> SOFTWARE: Apple Macintosh Microsoft Word 6.0

28 <210> SEQ ID NO: 1

29 <211> LENGTH: 546

30 <212> TYPE: PRT

31 <213> ORGANISM: Artificial sequence

W--> 32 <220> FEATURE:

33 <223> OTHER INFORMATION: E. coli expressed P. falciparum MSP142 (3D7) Protein Sequence in pET-Trx42

W--> 34 <400> SEQUENCE: 1

36	Met Ser Asp Lys Ile Ile His Leu Thr Asp	
37	1	5 10
38	Asp Ser Phe Asp Thr Asp Val Leu Lys Ala	
39		15 20
40	Asp Gly Ala Ile Leu Val Asp Phe Trp Ala	
41		25 30
42	Glu Trp Cys Gly Pro Cys Lys Met Ile Ala	
43		35 40
44	Pro Ile Leu Asp Glu Ile Ala Asp Glu Tyr	
45		45 50
46	Gln Gly Lys Leu Thr Val Ala Lys Leu Asn	
47		55 60
48	Ile Asp Gln Asn Pro Gly Thr Ala Pro Lys	
49		65 70
50	Tyr Gly Ile Arg Gly Ile Pro Thr Leu Leu	
51		75 80
52	Leu Phe Lys Asn Gly Glu Val Ala Ala Thr	
53		85 90
54	Lys Val Gly Ala Leu Ser Lys Gly Gln Leu	
55		95 100
56	Lys Glu Phe Leu Asp Ala Asn Leu Ala Gly	
57		105 110
58	Ser Gly Ser Gly His Met His His His His	
59		115 120

60 His His Ser Ser Gly Leu Val Pro Arg Gly

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61		125		130
62	Ser Gly Met Lys Glu Thr Ala Ala Ala Lys			
63		135		140
64	Phe Glu Arg Gln His Met Asp Ser Pro Asp			
65		145		150
66	Leu Gly Thr Asp Asp Asp Asp Lys Ala Met			
67		155		160
68	Ala Asp Ile Gly Ser Ile Glu Gly Arg Gly			
69		165		170
70	Thr Met Ala Ile Ser Val Thr Met Asp Asn			
71		175		180
72	Ile Leu Ser Gly Phe Glu Asn Glu Tyr Asp			
73		185		190
74	Val Ile Tyr Leu Lys Pro Leu Ala Gly Val			
75		195		200
76	Tyr Arg Ser Leu Lys Lys Gln Ile Glu Lys			
77		205		210
78	Asn Ile Phe Thr Phe Asn Leu Asn Leu Asn			
79		215		220
80	Asp Ile Leu Asn Ser Arg Leu Lys Lys Arg			
81		225		230
82	Lys Tyr Phe Leu Asp Val Leu Glu Ser Asp			
83		235		240
84	Leu Met Gln Phe Lys His Ile Ser Ser Asn			
85		245		250
86	Glu Tyr Ile Ile Glu Asp Ser Phe Lys Leu			
87		255		260
88	Leu Asn Ser Glu Gln Lys Asn Thr Leu Leu			
89		265		270
90	Lys Ser Tyr Lys Tyr Ile Lys Glu Ser Val			
91		275		280
92	Glu Asn Asp Ile Lys Phe Ala Gln Glu Gly			
93		285		290
94	Ile Ser Tyr Tyr Glu Lys Val Leu Ala Lys			
95		295		300
96	Tyr Lys Asp Asp Leu Glu Ser Ile Lys Lys			
97		305		310
98	Val Ile Lys Glu Glu Lys Glu Lys Phe Pro			
99		315		320
100	Ser Ser Pro Pro Thr Thr Pro Pro Ser Pro			
101		325		330
102	Ala Lys Thr Asp Glu Gln Lys Lys Glu Ser			
103		335		340
104	Lys Phe Leu Pro Phe Leu Thr Asn Ile Glu			
105		345		350
106	Thr Leu Tyr Asn Asn Leu Val Asn Lys Ile			
107		355		360
108	Asp Asp Tyr Leu Ile Asn Leu Lys Ala Lys			
109		365		370

RAW SEQUENCE LISTING

DATE: 09/23/2002

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TIME: 10:46:06

Input Set : A:\Sequence.txt

Output Set: N:\CRF3\09232002\J057531A.raw

```

110 Ile Asn Asp Cys Asn Val Glu Lys Asp Glu
111                               375           380
112 Ala His Val Lys Ile Thr Lys Leu Ser Asp
113                               385           390
114 Leu Lys Ala Ile Asp Asp Lys Ile Asp Leu
115                               395           400
116 Phe Lys Asn Pro Tyr Asp Phe Glu Ala Ile
117                               405           410
118 Lys Lys Leu Ile Asn Asp Asp Thr Lys Lys
119                               415           420
120 Asp Met Leu Gly Lys Leu Leu Ser Thr Gly
121                               425           430
122 Leu Val Gln Asn Phe Pro Asn Thr Ile Ile
123                               435           440
124 Ser Lys Leu Ile Glu Gly Lys Phe Gln Asp
125                               445           450
126 Met Leu Asn Ile Ser Gln His Gln Cys Val
127                               455           460
128 Lys Lys Gln Cys Pro Glu Asn Ser Gly Cys
129                               465           470
130 Phe Arg His Leu Asp Glu Arg Glu Glu Cys
131                               475           480
132 Lys Cys Leu Leu Asn Tyr Lys Gln Glu Gly
133                               485           490
134 Asp Lys Cys Val Glu Asn Pro Asn Pro Thr
135                               495           500
136 Cys Asn Glu Asn Asn Gly Gly Cys Asp Ala
137                               505           510
138 Asp Ala Thr Cys Thr Glu Glu Asp Ser Gly
139                               515           520
140 Ser Ser Arg Lys Lys Ile Thr Cys Glu Cys
141                               525           530
142 Thr Lys Pro Asp Ser Tyr Pro Leu Phe Asp
143                               535           540
144 Gly Ile Phe Cys Ser Ser
145                               545

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147 <210> SEQ ID NO: 2

148 <211> LENGTH: 431

149 <212> TYPE: PRT

150 <213> ORGANISM: Artificial sequence

W--> 151 <220> FEATURE:

152 <223> OTHER INFORMATION: E. coli expressed P. falciparum MSP142 (3D7) Protein
Sequence in pET(50)MSP1-42

W--> 153 <400> SEQUENCE: 2

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155 Met His His His His His His Ser Ser Gly
156 1                               5           10
157 Leu Val Pro Arg Gly Ser Gly Met Lys Glu
158                               15           20
159 Thr Ala Ala Ala Lys Phe Glu Arg Gln His
160                               25           30

```

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TIME: 10:46:06

Input Set : A:\Sequence.txt

Output Set: N:\CRF3\09232002\J057531A.raw

```

161 Met Asp Ser Pro Asp Leu Gly Thr Asp Asp
162                               35          40
163 Asp Asp Lys Ala Met Ala Asp Ile Gly Ser
164                               45          50
165 Ile Glu Gly Arg Gly Thr Met Ala Ile Ser
166                               55          60
167 Val Thr Met Asp Asn Ile Leu Ser Gly Phe
168                               65          70
169 Glu Asn Glu Tyr Asp Val Ile Tyr Leu Lys
170                               75          80
171 Pro Leu Ala Gly Val Tyr Arg Ser Leu Lys
172                               85          90
173 Lys Gln Ile Glu Lys Asn Ile Phe Thr Phe
174                               95         100
175 Asn Leu Asn Leu Asn Asp Ile Leu Asn Ser
176                               105        110
177 Arg Leu Lys Lys Arg Lys Tyr Phe Leu Asp
178                               115        120
179 Val Leu Glu Ser Asp Leu Met Gln Phe Lys
180                               125        130
181 His Ile Ser Ser Asn Glu Tyr Ile Ile Glu
182                               135        140
183 Asp Ser Phe Lys Leu Leu Asn Ser Glu Gln
184                               145        150
185 Lys Asn Thr Leu Leu Lys Ser Tyr Lys Tyr
186                               155        160
187 Ile Lys Glu Ser Val Glu Asn Asp Ile Lys
188                               165        170
189 Phe Ala Gln Glu Gly Ile Ser Tyr Tyr Glu
190                               175        180
191 Lys Val Leu Ala Lys Tyr Lys Asp Asp Leu
192                               185        190
193 Glu Ser Ile Lys Lys Val Ile Lys Glu Glu
194                               195        200
195 Lys Glu Lys Phe Pro Ser Ser Pro Pro Thr
196                               205        210
197 Thr Pro Pro Ser Pro Ala Lys Thr Asp Glu
198                               215        220
199 Gln Lys Lys Glu Ser Lys Phe Leu Pro Phe
200                               225        230
201 Leu Thr Asn Ile Glu Thr Leu Tyr Asn Asn
202                               235        240
203 Leu Val Asn Lys Ile Asp Asp Tyr Leu Ile
204                               245        250
205 Asn Leu Lys Ala Lys Ile Asn Asp Cys Asn
206                               255        260
207 Val Glu Lys Asp Glu Ala His Val Lys Ile
208                               265        270
209 Thr Lys Leu Ser Asp Leu Lys Ala Ile Asp

```

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Input Set : A:\Sequence.txt

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```

210          275          280
211 Asp Lys Ile Asp Leu Phe Lys Asn Pro Tyr
212          285          290
213 Asp Phe Glu Ala Ile Lys Lys Leu Ile Asn
214          295          300
215 Asp Asp Thr Lys Lys Asp Met Leu Gly Lys
216          305          310
217 Leu Leu Ser Thr Gly Leu Val Gln Asn Phe
218          315          320
219 Pro Asn Thr Ile Ile Ser Lys Leu Ile Glu
220          325          330
221 Gly Lys Phe Gln Asp Met Leu Asn Ile Ser
222          335          340
223 Gln His Gln Cys Val Lys Lys Gln Cys Pro
224          345          350
225 Glu Asn Ser Gly Cys Phe Arg His Leu Asp
226          355          360
227 Glu Arg Glu Glu Cys Lys Cys Leu Leu Asn
228          365          370
229 Tyr Lys Gln Glu Gly Asp Lys Cys Val Glu
230          375          380
231 Asn Pro Asn Pro Thr Cys Asn Glu Asn Asn
232          385          390
233 Gly Gly Cys Asp Ala Asp Ala Thr Cys Thr
234          395          400
235 Glu Glu Asp Ser Gly Ser Ser Arg Lys Lys
236          405          410
237 Ile Thr Cys Glu Cys Thr Lys Pro Asp Ser
238          415          420
239 Tyr Pro Leu Phe Asp Gly Ile Phe Cys Ser
240          425          430

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241 Ser

243 <210> SEQ ID NO: 3

244 <211> LENGTH: 393

245 <212> TYPE: PRT

246 <213> ORGANISM: Artificial sequence

W--> 247 <220> FEATURE:

248 <223> OTHER INFORMATION: E. coli expressed P. falciparum MSP142 (3D7) Protein
Sequence in pET42A

W--> 249 <400> SEQUENCE: 3

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251 Met Ala His His His His His Pro Gly
252 1          5          10
253 Gly Ser Ile Glu Gly Arg Gly Thr Met Ala
254          15          20
255 Ile Ser Val Thr Met Asp Asn Ile Leu Ser
256          25          30
257 Gly Phe Glu Asn Glu Tyr Asp Val Ile Tyr
258          35          40
259 Leu Lys Pro Leu Ala Gly Val Tyr Arg Ser
260          45          50

```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 09/23/2002
PATENT APPLICATION: US/10/057,531A TIME: 10:46:07

Input Set : A:\Sequence.txt
Output Set: N:\CRF3\09232002\J057531A.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 33
Seq#:2; Line(s) 152

VERIFICATION SUMMARY

DATE: 09/23/2002

PATENT APPLICATION: US/10/057,531A

TIME: 10:46:07

Input Set : A:\Sequence.txt

Output Set: N:\CRF3\09232002\J057531A.raw

L:3 M:259 W: Allowed number of lines exceeded, (1) GENERAL INFORMATION:
L:22 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD
L:32 M:283 W: Missing Blank Line separator, <220> field identifier
L:34 M:283 W: Missing Blank Line separator, <400> field identifier
L:151 M:283 W: Missing Blank Line separator, <220> field identifier
L:153 M:283 W: Missing Blank Line separator, <400> field identifier
L:247 M:283 W: Missing Blank Line separator, <220> field identifier
L:249 M:283 W: Missing Blank Line separator, <400> field identifier
L:336 M:283 W: Missing Blank Line separator, <400> field identifier
L:372 M:283 W: Missing Blank Line separator, <400> field identifier
L:454 M:283 W: Missing Blank Line separator, <220> field identifier
L:456 M:283 W: Missing Blank Line separator, <400> field identifier
L:493 M:283 W: Missing Blank Line separator, <220> field identifier
L:495 M:283 W: Missing Blank Line separator, <400> field identifier
L:580 M:283 W: Missing Blank Line separator, <220> field identifier
L:582 M:283 W: Missing Blank Line separator, <400> field identifier
L:590 M:283 W: Missing Blank Line separator, <220> field identifier
L:592 M:283 W: Missing Blank Line separator, <400> field identifier
L:601 M:283 W: Missing Blank Line separator, <220> field identifier
L:603 M:283 W: Missing Blank Line separator, <400> field identifier
L:610 M:283 W: Missing Blank Line separator, <220> field identifier
L:612 M:283 W: Missing Blank Line separator, <400> field identifier
L:621 M:283 W: Missing Blank Line separator, <220> field identifier
L:623 M:283 W: Missing Blank Line separator, <400> field identifier